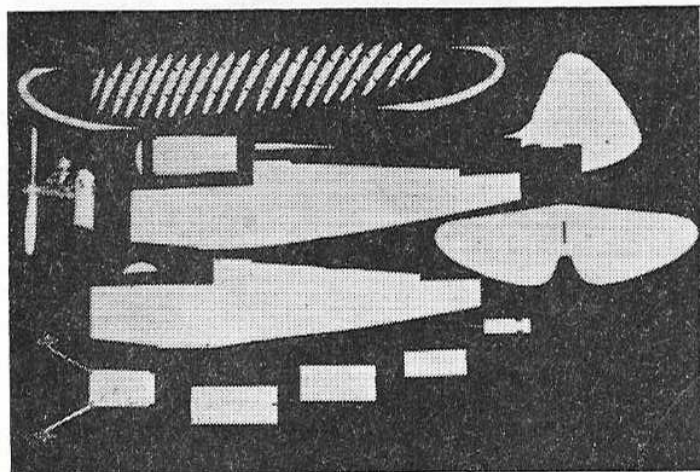
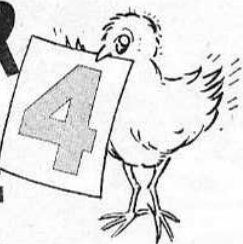


BEGINNER COURSE



SHARP SCOOTER

by Keith Laumer

A slick 29 inch sportster for .5 to .8c.c engines.

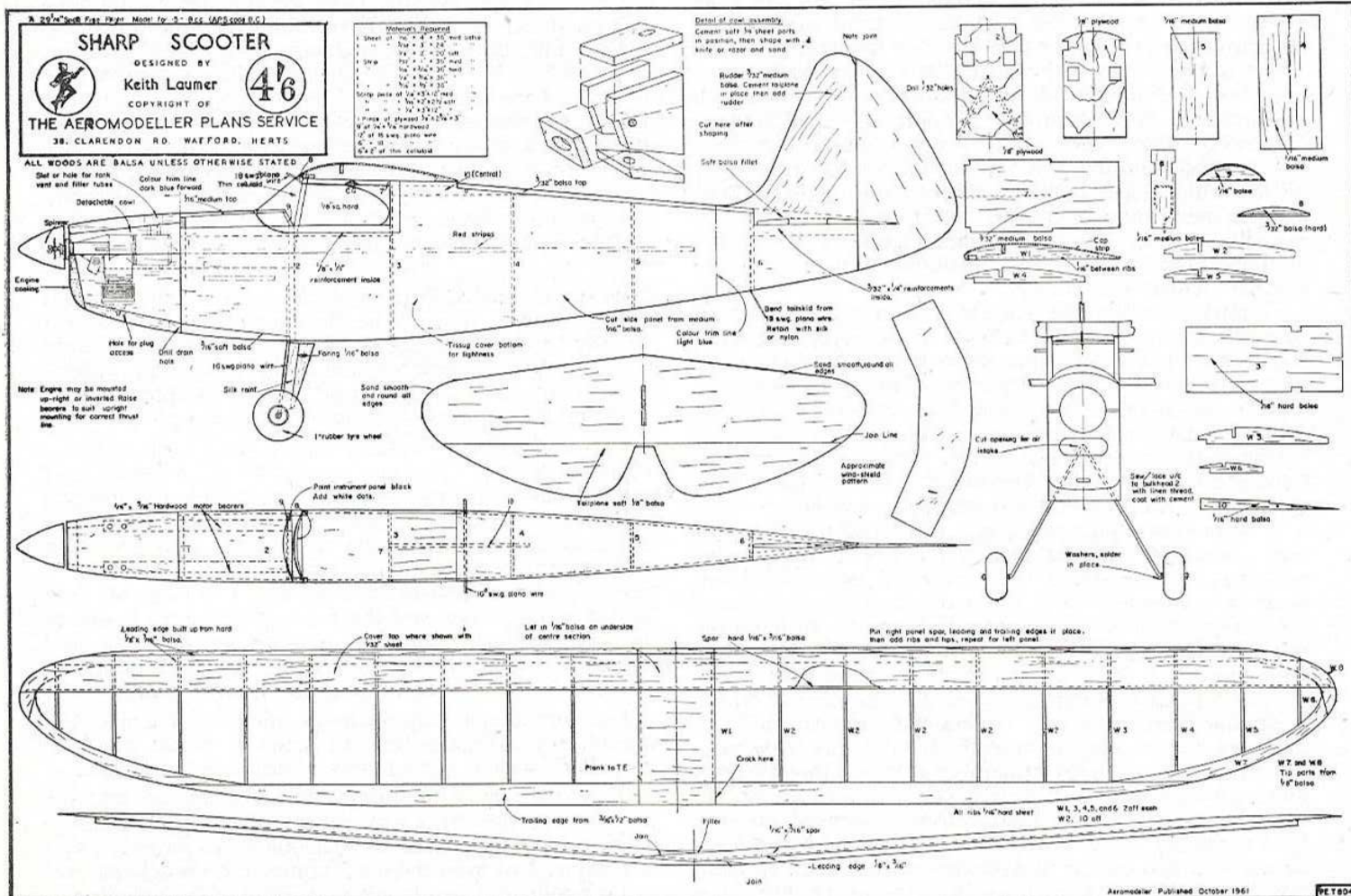
THIS IS THE first power model in our series and we have specially chosen a design and structure that will give a maximum reward of fun for minimum effort.

With the thrust of a miniature aero engine to haul your model skyward, you can afford to build heavier stronger structure—which is fortunate, since these power plants require a rigid, vibration-proof mounting. Surprisingly, added weight detracts nothing from the flying ability of a model (within limits, of course). In fact, a little added wing-loading makes for smoother, more realistic flights and better performance in windy weather.

Sharp Scooter is a sturdy all-balsa (well, almost!) ship with a high-aspect ratio (long and skinny to you) wing, sheet tail surfaces and ultra simple construction which gives yet another exercise in different types in this Beginners Course. Start by cutting out two fuselage side panels, tracing the pattern from the plan and add reinforcing strips. Now cut out bulkheads 1 to 6. Bend the landing gear from 16 s.w.g. piano wire, bore holes in bulkhead 2 and lace the wire to the plywood with heavy linen thread. Coat the lacing with cement, forcing it through the holes to make a secure job.

Bend the tail skid from 18 s.w.g. piano wire and attach to bulkhead 6 with a strip of cloth (silk). Decide on the engine you will use, and bore the hardwood motor bearers to fit. Attach the engine to the bearers, then mark the locations of the notches to receive the bearers on bulkheads 1 and 2. (The locations shown on plan are for inverted mounting of a D.C. Bantam and upright mounting means that the bearers must be raised by the thickness of the engine lugs in order to retain the correct thrust-line).

Join the fuselage sides on bulkhead 2 and 3, then add



the remaining bulkheads. Bevel the rear edge of the fuselage sides so that they can join as shown.

Add part No. 10, then the cabin roof (7) after bending the front wing hold down wire and cement to the underside of 7, then add part No. 8. Fit part No. 9 and cement motor bearers in position.

Cut the fuselage top panel and cement in place behind the cabin. Cut a section of 1/16 in. balsa to cover top of fuselage forward of cabin, soak in water and hold in place with rubber bands until set; then trim and cement in place. Add the balsa block to the underside forward of the u/c, then cut cowl sides, notch to fit over motor bearers and cement in position. Add 1/4 in. cowl bottom and front. Fit a soft balsa block in place temporarily to complete cowl outline. Use a sharp knife and a sanding block to trim cowl to final shape.

Add cabin posts of hard 1/8 in. sq. and sand entire fuselage smooth; apply a coat of clear dope and finish-sand with fine sandpaper.

Cut the rudder and tailplane, using wood noted on plan and join as shown. Sand surfaces smooth.

Cement elevator in place, then add the rudder and align both surfaces carefully. Add a soft balsa fillet to carry on the fuselage lines, then clear dope and sand the tail assembly. Cut landing gear fairings, sand smooth, and attach with silk. Start wing construction by cutting all ribs tip parts, spar, and leading edge members. Study the front view, then assemble spar and leading edge—and be sure they match! Sand the trailing edge to shape from a strip of 3/16 in. by 1/2 in. hard balsa to come out slightly shallower; score on upper surface at position of ribs W-1, and crack to proper dihedral angle.

Pin leading and trailing edges in position on plan; block up left tip two inches and add ribs and tip parts to right panel. Then block up right tip and complete left panel. Now add the spar, cementing all joints carefully. Remove the wing from plan, sand carefully and add leading edge and centre section planking.

To increase strength of wing, daub all joints thoroughly with a half-and-half cement-dope mixture. Clear dope wing planking, and sand lightly.

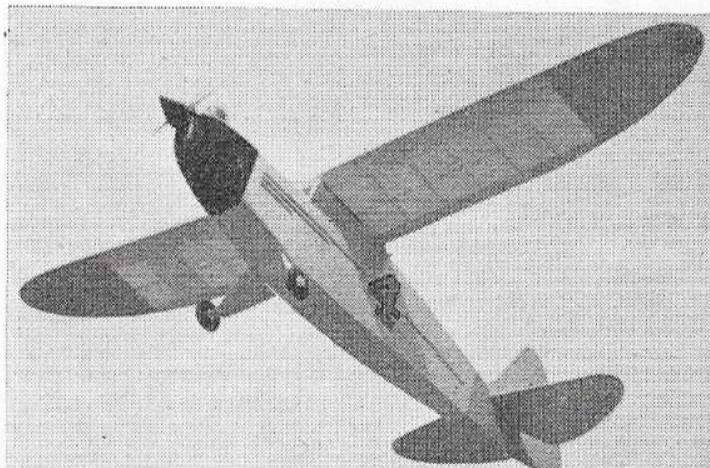
Cover wing and bottom of fuselage with jap tissue or lightweight model span, moisten with water, allow to dry thoroughly, and clear dope. Remove upper half of engine cowling, hollow to fit over engine; fuel-proof the interior of the engine compartment. Cut the drain hole, glow plug access hole, air intake and fuel access hole.

Spray or brush the entire model with two coats of white dope, sanding lightly between coats. Tape off all but nose and tail of model; spray tail assembly with a light colour and nose with a darker tone of the same colour. Paint instrument panel black and add white dots. Cut and install windshield and paint window outline. Add rear wing-hold-down.

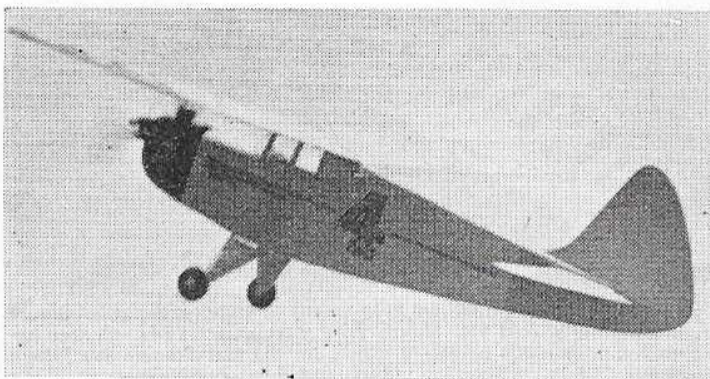
Install engine and spinner; cut transfer strips for fuselage sides and apply transfer numerals, etc.

Attach the wing with a couple of two inch rubber bands, add wheels, and solder retaining washers in place, and you're ready for flight testing. Pick a calm day and try a few hand launches over tall grass; Sharp Scooter has a fast, flat glide, and requires a healthier toss than a lightweight rubber job. If the model stalls, add a 1/32 in. strip under the trailing edge of the wing; for dives, block up leading edge. If more than 1/32 in. blocking is required, use a weight added to nose or tail.

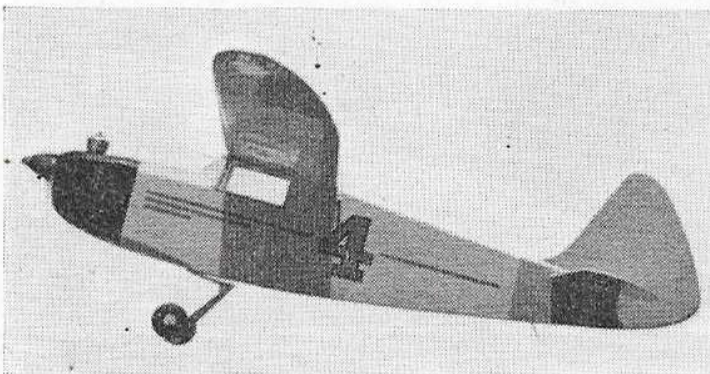
When a smooth glide is achieved, fuel the engine for a five to ten second motor run, and hand launch with the engine at half throttle, correcting any stalling or diving tendencies by adjusting engine thrust angle. Gradually increase power (but not motor run) until Sharp Scooter is blasting away under full thrust—then just lean back and watch her go!



Soaring away on a climb, the Sharp Scooter shows off the smart yet simple lines that are characteristic of a really good model, ideal for the novice



Rear view from a launch of the Scooter fitted with an upright engine. Mounting can be alternatively inverted for those who prefer extra realism in the cowl



Whichever way one views the Sharp Scooter, it has an appeal. On opposite page is a view of all the shaped parts to be cut out, and a 1/5th scale repro. of the full size plan which is available price 5/- inc. post as PET 804 from AEROMODELLER PLANS-SERVICE

